Claims:

1. A non-porous graft adapted to be secured to a stent surrounding said graft, said graft comprising:

an inner layer of a non-porous material;

an outer layer of material laminated to said inner layer; and

a fastening element adapted to be secured to said stent, wherein said fastening element is fixed between said inner layer and said outer layer.

2. The graft as recited in claim 1 comprising a plurality of said fastening elements distributed lengthwise and/or circumferentially on said graft.

3. The graft as recited in claim 1, wherein said graft is attached to an inside surface of the stent with said fastening elements projecting through the stent and a linear locking element through said fastening elements, wherein said linear locking element is secured to the stent at at least two points along a length of the stent.

4. The graft as recited in claim 1, wherein said fastening elements comprise D-shaped rings.

5. The graft as recited in claim 1, wherein the material of said inner layer is expanded polytetrafluoroethylene.

6. The graft as recited in claim 1, wherein the material of said outer layer is polyester.

7. The graft as recited in claim 1, wherein the material of said outer layer is knitted, woven, or braided.

8. The graft as recited in claim 1, wherein the material of said fastening elements is a radiographically differentiable material.

9. The graft as recited in claim 1, wherein the material of said linear locking elements is a radiographically differentiable material.

10. A non-porous tubular graft adapted to be secured to a stent surrounding said graft, said graft comprising:

an inner layer of a non-porous material; and

an outer layer of knitted, woven, or braided material laminated to said inner layer, wherein said outer layer includes a plurality of fastening elements extending outwardly from said outer layer along a length of said outer layer of said tubular graft, at least some of said fastening elements adapted to be secured to a stent surrounding said graft.

11. The graft as recited in claim 10, wherein said fastening elements comprise D-shaped rings.

12. The graft as recited in claim 10, wherein the material of said inner layer is expanded polytetrafluoroethylene.

13. The graft as recited in claim 10, wherein the material of said outer layer is polyester.

14. The graft as recited in claim 10, wherein the material of said outer layer is knitted, woven, or braided.

15. A stent-graft for defining a fluid passageway in a body lumen, said stent-graft comprising:

a stent; and

a graft, said graft comprising;

an inner layer of a non-porous material;

an outer layer of knitted, woven, or braided material laminated to said inner layer; and

a plurality of fastening elements, wherein at least a part of each fastening element is fixed between said inner layer and said outer layers

said stent surrounding said graft and secured thereto through said fastening elements.

16. The stent-graft as recited in claim 15, wherein said graft is attached to said stent with said fastening elements projecting through said stent and a plurality of looped locking elements securing said fastening elements to said stent.

17. The graft as recited in claim 15, wherein said graft is attached to said stent with said fastening elements projecting through said stent and a linear locking element through said fastening elements, wherein said linear locking element is secured to said stent at at least two points thereof.

18. The stent-graft as recited in claim 15, wherein said fastening elements comprise D-shaped rings.

19. The stent-graft as recited in claim 16, wherein the material of said looped locking elements is a radiographically differentiable material

20. A stent-graft for defining a fluid passageway in a body lumen, said stent-graft comprising:

a stent; and

a graft, said graft comprising;

an inner layer of a non-porous material; and

an outer layer of knitted, woven, or braided material laminated to said inner layer, wherein said outer layer includes a plurality of fastening elements extending outwardly from said outer layer along a length of said outer layer of said graft, at least some of said fastening elements adapted to be secured on an outer surface of the stent surrounding said graft, at least a part of each said fastening element being disposed between said inner layer and said outer layer.

21. The stent-graft as recited in claim 20, wherein said graft is attached to said stent with said fastening elements projecting through said stent and a plurality of looped locking elements secured to said stent by knotted loops of suture material.

22. The stent-graft as recited in claim 20, wherein said graft is attached to said stent with said fastening elements projecting through said stent and a linear locking element through said fastening elements, wherein said linear locking element is secured to said stent at at least two points along a length of said stent.

23. A method of making a non-porous tubular graft comprising the steps of:

securing a plurality of fastening elements extending through an outer layer of knitted, woven, or braided material along a length of the outer layer, wherein the fastening elements extend outwardly from the outer layer;

placing an inner layer of non-porous material within the outer layer such that an underside of each fastening element is positioned between the inner layer and the outer layer; and

laminating the outer layer to the inner layer to form the non-porous tubular graft.